

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Re: Application of:	<b>KAISER et al.</b>	Art Unit:	2854
Serial No.:	10/730,471	Confirmation No.:	2875
Filed:	December 8, 2003	Atty. Docket:	600.1290
Examiner:	Joshua D. Zimmerman	Customer No.:	23280
For:	<b>METHOD AND SYSTEM FOR DIGITAL IMAGING OF PRINTING FORMS</b>		

Mail Stop: APPEAL BRIEF – PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

June 17, 2010

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of their appeal of the Rejection dated January 25, 2010 in this application. The statutory fee of \$540.00 was paid with the Appeal Brief filed December 1, 2008. If any additional fees are deemed to be due at this time, the Assistant Commissioner is authorized to charge payment of the same to Deposit Account No. 50-0552.

## REAL PARTY IN INTEREST

The real party in interest is Heidelberger Druckmaschinen AG, a corporation having a place of business in Heidelberg, Germany, and the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned to Heidelberger Druckmaschinen AG by an assignment originating from inventors Michael Kaiser and Ludo Kerz. The most recent assignment was recorded on December 8, 2003 at reel 015533, frame 0344.

## I. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal, interference or judicial proceeding that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

## II. STATUS OF CLAIMS

Claims 2 to 11 are pending. Claims 1 and 12 have been canceled. Claims 2 to 11 have been finally rejected by the Examiner as per the Final Office Action dated August 19, 2009 and were most recently rejection as per the Office Action dated January 25, 2010.

The rejection of claims 2 to 11 thus is appealed. A copy of pending claims 1 to 10 is attached hereto as Appendix A.

## III. STATUS OF AMENDMENTS

No amendments to claims were filed after the Office Action dated January 25, 2010. A Notice of Appeal was filed and received by the U.S.P.T.O. on April 28, 2010.

#### IV. SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 11 recites a method for digital imaging of a printing form through application of energy (e.g., Fig. 6; specification at page 12, lines 5 to 25, paragraph [0040]) the method comprising the steps of: establishing at least one reference point within image data of an image to be imaged onto a printing form and a limit value for a number of image spots within a surrounding area of the at least one reference point (e.g., specification at page 7, line 28 to page 8, line 17, paragraph [0028]); examining a plurality of image spots in the surrounding area of the at least one reference point in the image data and comparing the number of image spots to be imaged within the surrounding area with the limit value with the image processing unit (e.g., specification at page 8, line 19 to page 9, line 10, paragraphs [0029] to [0030]); modifying the image data to leave in place the at least one reference point as at least one supporting point if the number of image spots to be imaged in the surrounding area of the at least one reference point exceeds the limit value and a boundary area in the surrounding area around the at least one reference point contains only image spots to be imaged (e.g., Fig. 2; specification at page 8, line 19 to page 9, line 18, paragraphs [0029] to [0031]; specification at page 9, lines 25 to 28, paragraph [0032]); applying energy to create burn-off within the image spots around the at least one supporting point in a burn-off area (e.g., specification at page 9, lines 28 to 29, paragraph [0032]); and detaching burn-off from the burn-off area from the printing form in a cleaning step (e.g., specification at page 9, line 29, paragraph [0032]).

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 2 to 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA).

## VII. ARGUMENTS

### A. Rejections under 35 U.S.C. 103(a): AAPA

Claims 2 to 11 were rejected under 35 U.S.C. §103(a) as unpatentable over AAPA.

AAPA is described at paragraphs [0003] to [0008] of the specification.

#### 1. Independent Claim 11

Independent claim 11 recites “[a] method for digital imaging of a printing form through application of energy the method comprising the steps of:

establishing at least one reference point within image data of an image to be imaged onto a printing form and a limit value for a number of image spots within a surrounding area of the at least one reference point;

examining a plurality of image spots in the surrounding area of the at least one reference point in the image data and comparing the number of image spots to be imaged within the surrounding area with the limit value with the image processing unit;

modifying the image data to leave in place the at least one reference point as at least one supporting point if the number of image spots to be imaged in the surrounding area of the at least one reference point exceeds the limit value and a boundary area in the surrounding area around the at least one reference point contains only image spots to be imaged;

applying energy to create burn-off within the image spots around the at least one supporting point in a burn-off area; and

detaching burn-off from the burn-off area from the printing form in a cleaning step.”

It is respectfully submitted that AAPA does not disclose or make obvious the “establishing,” “examining” and “modifying” steps of claim 11. The Examiner acknowledges that these steps of claim 11 are not disclosed in AAPA, but alleges that these steps would have been obvious over AAPA. At page 4 of the January 25, 2010 Office Action, the Examiner states:

AAPA teaches that the number of supporting points is a results-effective variable which affects the residual adhesion of the imaged area surrounding the supporting points, which affects the uncontrolled detachment of burn-off, thereby ultimately affecting the control of the cleaning process.

This is a similar situation to construction of bridge or platform, in that one must provide sufficient support while at the same time minimizing use of materials by using as few support structures as possible. In doing so, one chooses an appropriate limit value of weight which is not meant to be exceeded, which corresponds to the location (space between supports) and number of supports.

Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to optimize the residual adhesion of the imaged areas by optimizing the number of supporting points and the space between them to achieve the predictable result of providing sufficient support structure to burn-off areas such that uncontrolled detachment of burn-off areas does not occur, thus allowing for a controlled cleaning of the printing form.

It is respectfully submitted that the Examiner's determination that the "establishing," "examining" and "modifying" steps of claim 11 would have been obvious is completely conclusory and is not supported by AAPA. It is respectfully submitted that the Examiner's statements misinterpret AAPA and completely disregards the exact teaching of paragraphs [0007] and [0008] of the present specification. Paragraph [0007] of the present specification teaches "[i]n normal high-resolution imaging, supporting points are distributed in a uniform grid across the entire printing area." (Emphasis added). Paragraph [0008] of the present specification further teaches "[i]f at uniform intervals ... individual set bits ... are replaced by un-set bits ... supporting points result ... in the form of small un-imaged areas on a uniform grid." (Emphasis added). For example, the AAPA method of distributing supporting points in a uniform grid is described in Fig. 5b. In Fig. 5b, the supporting points are distributed at uniform intervals in two linearly independent positions and the intervals are set at constant values. Thus, the teaching of AAPA is to provide the supporting points on a uniform grid at constant predetermined intervals without examining the image area. If supporting points are provided on such a uniform grid, the only information needed to are the uniform intervals in the two linearly independent directions of the grid. Based upon the teaching of AAPA, there would be absolutely no reason for one of skill in the art establish a "limit value" or to consider a "surrounding area of the at least one reference point" and a "boundary area in the surrounding area" as in claim 1. One of skill in the art would understand that the uniform intervals are constant values for given imaging resolutions and merely stored and read when needed, but not modified in view of an examination and comparison of the image area as in the "examining" and "modifying" steps of claim 1.

Additionally, it is respectfully submitted that the Examiner completely fails to address the actual language of any of the “establishing,” “examining” and “modifying” steps of claim 11. The only articulated reasoning provided by the Examiner as to why these steps would have been obvious to one of skill in the art appears to involve somehow analogizing the modifying of image data to leave in place at least one reference point as at least one supporting point on a printing plate to minimizing materials in the construction of bridge by using as few support structures as possible. The Examiner alleges that using as few support structures as possible in constructing a bridge or platform involves choosing “an appropriate limit value of weight which is not meant to be exceeded, which corresponds to the location (space between supports) and number of supports.” Then, the Examiner merely concludes that all of the limitations of claim 11 would have been obvious to optimize the number of supporting points and the space between them in AAPA.

Claim 11 recites “establishing ... a limit value for a number of image spots within a surrounding area of the at least one reference point.” The Examiner does not articulate why one of skill in the art would have modified the teaching of AAPA to place supporting points in a uniform grid on a printing plate in view of the Examiner’s unsupported statement that constructing a bridge or platform involves choosing an appropriate limit value of weight to establish “a *limit value for a number of image spots* within a surrounding area of the at least one reference point” as recited in claim 11. The Examiner appears to allege that one of skill in the art, in view of the Examiner’s bridge construction hypothetical, would have modified AAPA to establish a limited value of the weight of the supporting points used on a printing plate and thus all of the limitations of claim 11 would have been obvious to optimize the number and spacing of the supporting points in AAPA. Neither AAPA nor the Examiner’s bridge construction hypothetical provides any reason why one of skill in the art would have established “a *limit value for a number of image spots* within a surrounding area of the at least one reference point” as recited in claim 11 to limit the weight of the supporting points used on a printing plate a number of image spots in an area of image data or why such a modification would have been obvious to one of skill in the art. As discussed above, the “establishing” step of claim 11, in view AAPA and the Examiner would not have been obvious to one of skill in the art at the time of the present

invention and the Examiner's bridge construction hypothetical, would not have been obvious and the Examiner's conclusion of obviousness is based on hindsight bias.

Similarly, the Examiner does not establish a prima facie case of obviousness with respect to the "examining" step of claim 11. Claim 11 recites "examining a plurality of image spots in the surrounding area of the at least one reference point in the image data and comparing the number of image spots to be imaged within the surrounding area with the limit value with the image processing unit." The Examiner does not in any way explain why one of skill in the art would have modified the teaching of AAPA of distributing supporting points in a uniform grid in view of choosing a limit value of a weight of materials to be used to construct supporting structure or how such a modification would make obvious "examining a plurality of image spots in the surrounding area of the at least one reference point in the image data and comparing the number of image spots to be imaged within the surrounding area with the limit value with the image processing unit" as recited in claim 1. As discussed above, one of skill in the art would not have had any reason to have compared image spots to be imaged in a surrounding area of any point in AAPA with a limit value in view of the limiting the weight of support structures in the Examiner's bridge construction hypothetical. It is respectfully submitted that the "examining" step of claim 11 would not have been obvious to one of skill in the art at the time of the present invention and the Examiner's conclusion of obviousness is based on hindsight bias.

Similarly, the Examiner does not establish a prima facie case of obviousness with respect to the "modifying" step of claim 11. Claim 11 recites "modifying the image data to leave in place the at least one reference point as at least one supporting point if the number of image spots to be imaged in the surrounding area of the at least one reference point exceeds the limit value and a boundary area in the surrounding area around the at least one reference point contains only image spots to be imaged." The Examiner does not state why one of skill in the art would have modified the teaching of AAPA of distributing supporting points in a uniform grid to modify image data of AAPA to leave any reference point as a supporting point if the number of image spots to be imaged in the surrounding area of the at least one reference point exceeds a limit value in view of the limiting the weight of support structures in the Examiner's bridge construction hypothetical and the reference point a boundary area in the surrounding area around the at least one reference point contains only image spots to be imaged. The Examiner's bridge

construction hypothetical clearly does not provide any reason to take into consideration a boundary area in a surrounding area of a reference point in image data of printing plate or, more specifically, to leave in place a reference point as a supporting point based on whether the boundary area in a surrounding area of a reference point in image data of printing plate contains only image spots to be imaged. As discussed above, the “modifying” step of claim 11, in view AAPA and the Examiner would not have been obvious to one of skill in the art at the time of the present invention and the Examiner’s bridge construction hypothetical, would not have been obvious to one of skill in the art at the time of the present invention and the Examiner’s conclusion of obviousness is based on hindsight bias.

Based on the foregoing, reversal of the rejection under 35 U.S.C. 103(a) of claim 11 and its dependent claims 2 to 10 is respectfully requested.

## 2. Dependent Claim 5: Argued Separately

Claim 5 recites “[t]he method as recited in claim 11 wherein the distance from a first reference point to a second reference point of the at least one reference point matches an extent of the boundary area.”

It is respectfully submitted that AAPA does not disclose or make obvious “the distance from a first reference point to a second reference point of the at least one reference point matches an extent of the boundary area” as recited in claim 5. The Examiner alleges that the limitations of claim 5 are taught by Sub-figure B of Fig. 5 of the present application without explaining in any way how Sub-figure B of Fig. 5 discloses the limitations of claim 5. As discussed at paragraph [0038] of the present application, Sub-figure B of Fig. 5 merely shows “a printing area 80 which has been imaged with uniformly modified image information or on the basis of a uniformly modified bit field” so that “both ‘small text’ and ‘big text’ contain supporting points 84.” Sub-figure B of Fig. 5 is an imaged printing form that was imaged using a prior art method that does not take into account a “boundary area” and thus it is not clear how exactly the Examiner is asserting that the disclosure of supporting points 84 in text shows that the distance from one supporting point to another matches an extent of a “boundary area” that is taken into account when modifying image information.



For this additional reason, reversal of the rejection under 35 U.S.C. 103(a) of claim 5 is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance. Favorable consideration of this appeal brief is respectfully requested.

Respectfully submitted,

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**APPENDIX A:**

PENDING CLAIMS 2 to 11 of  
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Claim 2 (previously presented): The method as recited in claim 11 wherein the number of image spots to be imaged in a surrounding area of a reference point is determined in an analysis of the image data represented in digital form as a bit field.

Claim 3 (previously presented): The method as recited in claim 11 further comprising a calibration step prior to the leaving in place step wherein at least one of a geometric shape and extent of the surrounding area, the geometric shape and extent of the boundary area, and the distance from a first reference point to a second reference point of the at least one reference point is determined.

Claim 4 (previously presented): The method as recited in claim 11 wherein the at least one reference point includes a plurality of reference points distributed in the image data in a uniform grid over a representation of a printing area of the printing form.

Claim 5 (previously presented): The method as recited in claim 11 wherein the distance from a first reference point to a second reference point of the at least one reference point matches an extent of the boundary area.

Claim 6 (previously presented): A system for digital imaging of printing forms in a method as recited in claim 11, the system comprising:

an energy source,  
a cleaning unit,  
a control unit, and  
an image processing unit with a computing unit,

wherein in the computing unit of the image processing unit a program is executable, the program having at least one executable step determining whether the limit value has been exceeded at a number of positions in a bit field representing the image data in digital form, the positions corresponding to the reference points.

Claim 7 (original): The system as recited in claim 6 wherein the image processing unit includes a raster image processor and a data buffer for the image data represented in digital form as a bit field.

Claim 8 (original): The system as recited in claim 6 wherein the program has at least one executable step for modifying the bit field in at least one area at the positions at which the limit value is exceeded.

Claim 9 (original): A printing unit comprising a system for imaging as recited in claim 6.

Claim 10 (original): A printing press comprising a printing unit as recited in claim 9.

Claim 11 (previously presented): A method for digital imaging of a printing form through application of energy the method comprising the steps of:

establishing at least one reference point within image data of an image to be imaged onto a printing form and a limit value for a number of image spots within a surrounding area of the at least one reference point;

examining a plurality of image spots in the surrounding area of the at least one reference point in the image data and comparing the number of image spots to be imaged within the surrounding area with the limit value with the image processing unit;

modifying the image data to leave in place the at least one reference point as at least one supporting point if the number of image spots to be imaged in the surrounding area of the at least one reference point exceeds the limit value and a boundary area in the surrounding area around the at least one reference point contains only image spots to be imaged;

applying energy to create burn-off within the image spots around the at least one supporting point in a burn-off area; and

detaching burn-off from the burn-off area from the printing form in a cleaning step.

## **APPENDIX B**

### Evidence Appendix under 37 C.F.R. §41.37 (c) (ix):

No evidence pursuant to 37 C.F.R. §§1.130, 1.131 or 1.132 and relied upon in the appeal has been submitted by appellants or entered by the examiner.

## APPENDIX C

### Related proceedings appendix under 37 C.F.R. §41.37 (c) (x):

As stated in "2. RELATED APPEALS AND INTERFERENCES" of this appeal brief, appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.